

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/667,233	09/22/2000	MASAO MURADE	106377	1342

25944 7590 03/26/2003

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
----------

TON, MINH TOAN T

ART UNIT	PAPER NUMBER
----------	--------------

2871

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/667,233

Applicant(s)

MURADE, MASAO

Examiner

Toan Ton

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-33 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

*Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-31, drawn to an electro-optical device, classified in class 349, subclass 123.
  - II. Claims 32-33, drawn to a method of manufacturing an electro-optical device, classified in class 349, subclass 187.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed in Group I can be made by another and materially different process other than the process as claimed in Group II.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

4. If Group I is elected above, a further election of the following patentably distinct species of the claimed invention is required :

(Ia) the specifics of the device being comprised of : a step portion, formed on a surface of at least one of the first alignment layer and the second alignment layer, and downwardly rubbed in a direction of the rubbing process, and a light-shielding layer formed in an area facing the step portion that is downwardly rubbed in the direction of the rubbing process, and formed on at least one of the first substrate and the second substrate (claims 1-12); *or*

(Ib) the specifics of the device being comprised of : a portion of the liquid crystal having a reverse tilt angle, and formed on a surface of at least one of the first alignment layer and a second alignment layer, and a light-shielding layer formed in an area facing the portion of the liquid crystal having the reverse tilt angle, and formed on at least one of the first substrate and the second substrate (claim 13); *or*

(Ic) the specifics of the device being comprised of : a step portion, formed on a surface of the first alignment layer in an area corresponding to a spacing between pixel electrodes on the first substrate, and downwardly rubbed in a direction of the rubbing process, and a light-shielding layer formed in an area facing the step portion that is downwardly rubbed in the direction of the rubbing process, on at least one of the first substrate and the second substrate (claims 14-15); *or*

(Id) the specifics of the device being comprised of : a light-shielding layer formed at least on one of the first substrate and the second substrate and defining a pixel area, and a step portion having an upwardly rubbed portion in a direction of the rubbing process, the upwardly rubbed

Art Unit: 2871

portion being formed in a vicinity of an area facing the light-shielding layer on a surface of the first alignment layer on the first substrate (claims 16-21); *or*

(Ie) the specifics of the device being comprised of : a groove formed in the first substrate, a line arranged along the groove, a step portion formed on a surface of the first alignment layer in an area of the groove, and a light-shielding layer formed in an area facing the step portion that is downwardly rubbed, at least on one of the first substrate and the second substrate, a direction of the rubbing process of the first substrate being aligned in a downwardly rubbing direction to the step portion (claims 22-23); *or*

(If) the specifics of the device being comprised of : a projection formed on a surface of an alignment layer of the first substrate in an area corresponding to a spacing between adjacent pixel electrodes that are driven in mutually different polarities, the projection comprising a downwardly rubbed portion in a direction of the rubbing process of the first substrate, and a light-shielding layer formed in an area facing the downwardly rubbed portion, on at least one of the first substrate and the second substrate (claims 24-27); *or*

(Ig) the specifics of the device being comprised of : a step portion formed on a surface of the alignment layer in an area corresponding to a spacing between the pixel electrodes, and upwardly rubbed in a direction of the rubbing process (claims 28-31).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there is no generic claim.

Art. Unit: 2871

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.


5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Art Unit: 2871

*Contact Information*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (703) 305-3489. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

March 24, 2003

  
TOANTON  
PRIMARY EXAMINER